



Community-Based Approaches to Sustainable Health Campaigns in Malaria Prevention and Control in Jayapura, Papua

Veronika Veronika¹ and Bertha Murtiningsih²

¹ Universitas Multimedia Nusantara, Tangerang, Indonesia
veronika.kaban@umn.ac.id

Abstract. This research is motivated by the importance of intercultural communication competencies based on local wisdom and cultural norms approach in health communication practices. The objectives of this research are to identify health communication problems in handling malaria diseases in health centers in Jayapura, Papua Province. The research methodology used is a qualitative approach with a case study method. Data collection was carried out through in-depth interviews and document studies. Informants and participants in the study amounted to 6 people including medical practitioners from health centers. The findings Health communication, particularly in preventing and treating malaria in Papua, remains a significant challenge. Obstacles identified include language, cultural, and educational barriers among the diverse population.

Keywords: Health communication, sustainable development, Malaria, Papua.

1 Introduction

Health communication problems in Indonesia generally involve not only medical issues but also cultural ones. Traditional communities are still bound by cultural norms, particularly regarding the diagnosis and treatment of illness, making medical treatment difficult. This contributes to the inability to access healthcare for all parties. Health communication practices need to consider the patient's cultural background to ensure optimal decision-making and treatment. Betsch et al. (2016) define culturally sensitive health communication as the deliberate, evidence-based adaptation of health communication to the recipient's cultural background to enhance knowledge and preparation for medical decision-making, as well as to enhance the persuasiveness of health promotion messages. To achieve effective health communication in diverse cultural contexts, an empirically and theoretically grounded understanding of culture is crucial.

Papuan society is a traditional community that still adheres to customs and traditions, including regarding illness. Culture plays a role in shaping perspectives, beliefs, and values regarding the treatment of illness. In this context, a lack of knowledge about a patient's language, values, and cultural beliefs can endanger their lives and undermine the overall healthcare experience (Samovar et al., 2017).

Malaria is a disease that kills more than 1 million people annually. Indonesia is one of the countries with the highest malaria cases, spread across several islands, including

Papua. In 2022, 393,000 malaria cases occurred in Papua out of more than 443,000 cases nationally (Aisyah et al., (2024). Papua Province is the province with the highest number of cases in Indonesia with 176,070 cases. Papua is an endemic area for malaria and the largest contributor to cases in Indonesia, accounting for 79% of cases. The Annual Parasite Incidence (API) of Jayapura Regency is among the three regencies with the highest API in Indonesia (28, L. updated: A., & Name. (2024, April 28). Most of people approach malaria from a traditional perspective, treating the disease traditionally using traditional medicines as an alternative medicine. Traditional plants are often used by people in Jayapura Regency to treat malaria through various processing processes. These plants include papaya leaves, milk wood, and turmeric (Tukayo & Samalo, 2023).

However, according to research by Purba et al., three critical elements in the use of antimalarial drugs are correct indications, the correct medication, and the correct dosage (Purba et al., 2021). Providing health services in Papua is not easy. Several obstacles exist, including typography and cultural ties that make Papuans still prefer to consult traditional healers or pray when sick. Health workers are not their priority (Wahyuni, 2015, November 29).

Based on these challenges, medical practitioners in the Papua region, including doctors and nurses, strive to provide knowledge and awareness to the community through a sustainable health communication outreach program based on local wisdom. When a malaria pandemic occurs, health communication becomes crucial, especially for the government and medical practitioners, to the affected community. The role of opinion leaders, utilizing local communities, is considered crucial to building trust with the community. Based on this background, the researchers wanted to understand: 1) the health communication practices of doctors and patients in the management and treatment of malaria outbreaks in Papua; 2) the importance of the role of opinion leaders in health communication practices; and the forms of local wisdom in health communication practices. The contribution of this paper presenting a community-based health communication perspective and Papuan local wisdom.

2 Literature Review

2.1 Health Communication

The World Health Organization (WHO) recognizes that effective, integrated, and coordinated communication is integral to achieving WHO's goal of building a better and healthier future for people worldwide. Health communication has expanded its scope from biomedical interventions at the personal level to more context-based communication about health, encompassing the social and environmental factors that impact individual health (Malikhao, 2019). Health communication is how a message is communicated effectively to individuals, groups and communities, enabling behavioral changes including changes to existing policies (Cross et al., 2017).

Culture is socially constructed and dynamic. Culture is something we pass down from one generation to the next. Culture influences how we interact and experience the

world, including suffering, pain and its articulation, healing, mental health, and self-development (Malikhao, 2019).

In multicultural societies, health communication challenges arise from a lack of shared meanings, as well as differences in language and cultural practices. These factors can lead to misunderstandings and hinder trusting relationships (Higginbottom, et al., 2015).

2.2 Sustainability in Health and Health Communication

Sustainability in health is a social mobilization process empowered by stakeholders, some of whom may be health communicators, and external health communicators who empathize with stakeholders, to achieve two goals: first, engaging communities in improving health and media literacy so they can make informed choices about their bodies, health, and healthcare. Second, building community capacity and networking with other communities so they can solve public health problems, achieve social equity in health, prevent disease, maintain well-being, and foster health knowledge, positive attitudes, ethical values, a cosmopolitan worldview, and health behaviors, including advocating for structural changes for local healthy lifestyles and accommodating environments (Malikhao, 2019). Effective and appropriate communication is vital in changing for health improvement today's information overloaded world. The aim of health communication is to work together to become healthier and more sustainable (Cross et al., 2017). Communication challenges can be experienced by all, but the responsibility remains with healthcare providers and those in management and professional bodies to ensure that providers are equipped with the necessary skills to facilitate culturally appropriate services (Higginbottom, et al., 2015).

3 Research Method

This research used a case study method with data collection through interviews and document review. Data collection took place at two community health centers (Puskemas) in Waena and Puskesmas in Elly Uyo. The author interviewed three medical personnel at each community health center.

- Dr. Selfiana Tenau
- Wilsa D. Maniagasi
- Syska Wangluan
- Dr. Emilia Marnita
- Yunita T. Renyaan
- Sukmawati

Afterward, the researcher categorized the emerging patterns and themes.

4 Results and Discussions

Malaria is considered endemic in Papua. Prevention and treatment of this disease continue through various methods, including effective communication. For example, educating pregnant women about malaria screening starting in the first trimester. The malaria parasite can destroy red blood cells, leading to anemia, which is dangerous for both mother and baby.

"There are malaria cases every day, but the peak cases are usually during the rainy season," said Doctor Emilia.

Healthcare workers face various challenges. Malaria is not a new disease, which leads some people to mistakenly believe that every fever is malaria. Therefore, medical personnel must continue to educate the public.

"Educate patients that a fever is not always malaria," Nurse Yunita.

Good communication is crucial in conveying accurate information and evaluating patients' thinking.

"Communication is indeed the best. It is very important. It does require a great deal of patience with patients," Nurse Yunita.

4.1 Local Wisdom-Based Health Communication Practices

Kanibararupo is a value that continues to be upheld by the community.

"It means that when we are sick, we all feel the same pain, and when we are hungry, we all feel the same pain." Nurse Wilsa.

This value is reflected in the community's daily lives, especially when they need medical assistance. People help each other by transporting or accompanying them. Likewise, when medical personnel need to visit, they receive a lot of assistance, especially from local residents, in communication.

Local wisdom plays a crucial role in public health. Medical personnel can use symbols, language, and practices close to local culture that are readily accepted by the community Hutapea & Hutapea (2025).

Medical personnel visit twice a month. This program is called "pusling," or mobile community health centers. In addition, there is a community health post (Posyandu) program to educate mothers and expectant mothers.

Hutapea & Hutapea (2025) also emphasized that improving public health programs requires an approach that is not only technically effective but also culturally and socially contextual.

Health communication is generally verbal. Another medium used is leaflets that can illustrate or visualize information.

This mutual assistance is also reflected in the formation of health cadres, also known as malaria cadres. Malaria cadres are tasked with monitoring community health conditions due to the medical personnel's vast and geographically inaccessible work area. Malaria cadres also develop a psychological closeness with the community.

4.2 Different community groups with different approaches

Doctors not only learn about healthcare but also how to communicate.

One way to achieve this is by finding common ground with the surrounding community. For example, doctors who communicate should be those from similar ethnic and religious backgrounds to ensure effectiveness.

Community groups consist of several types: local residents, established immigrants, and transit immigrants. Health workers approach each of these groups, either personally or through health cadres (kader kesehatan) and religious and traditional leaders.

Health cadres play a crucial role in personal health communication. They will meet with people from house to house or door to door. Some communities only trust those they know.

“People living in mountainous areas are less open and rarely come for checkups. When given information or education, they are reluctant or reluctant to implement it. The role of health cadres is to remind and monitor these activities” Nurse Siska.

Murtiningsih et al. (2024) explain that strategi Participatory communication is crucial for public acceptance of policies. Communication must be dialogic and symmetrical, and decision-making must be participatory, taking local wisdom into account.

4.3 Barriers to Health Communication between Doctors and Patients.

Language Barriers. The challenge faced is that some residents cannot speak Indonesian. They come alone without a companion, even though they cannot speak Indonesian. They come to the community health center because they already understand their physical condition, which requires assistance without a healthcare professional.

A woman comes for treatment alone, without bringing anyone with her. Sometimes we just give her paracetamol if she's feeling sick, but we write a note. A small note addressed to someone at home who can read, which is to be accompanied back. That's what we usually do. For example, "Please accompany me back to the community health center tomorrow with my mother for a follow-up examination by the doctor," said Doctor Selvie.

Nurse Wilsa also experienced a similar language barrier. Nurse Silva often used young people in the area as interpreters. The sheer number of regional languages makes it difficult for medical personnel to learn them.

Ministry of Education and Culture data shows that there are 10 regional languages spoken in Jayapura City, including Elseng, Kayo Pulau, Malayu, Nafri, Nyaw, Skou, and Tobati. Meanwhile, data on the number of regional languages in Papua is 482 types.

Cultural habit barriers. On the other hand, people who still hold strong alternative beliefs don't perceive their illness as a medical condition. Medical personnel must take a personal approach to explain and persuade them to follow treatment.

"When I think about it, it's because someone made me wait a while, I haven't prayed yet, I've given him water, I've given him something else. But actually, if we look at it, it's a shame that it's too late, too late for treatment," Nurse Wilsa.

Malaria is also considered a common disease by some people. People self-medicate by taking medication without a doctor's prescription. Inappropriate treatment can worsen the condition.

This situation is not easy to handled as Murtiningsih & Veronika (2022) said the cross-cultural adaptation in different ethnic and religious communities is not an easy process.

Educational Background Barriers. One challenge is the educational and occupational backgrounds of residents, even within the same work area. In some areas where medical personnel work, residents have no education, while others have higher education. The people they serve generally have low educational backgrounds. The challenge is that they are busy working and neglect their health. They often lack the funds for examinations or treatment.

Furthermore, medical personnel must explain health information more simply.

On the other hand, there are groups of people who already have access to information, such as the internet. Medical personnel often encounter obstacles in treating patients who have acquired too much information online but haven't verified the source. So medical personnel have to explain again.

4.4 The Role of Opinion Leaders in Health Communication

Health workers utilize religious and traditional leaders. Health education is provided in churches and mosques. These leaders generally speak the local language, making it easier to communicate with the local community.

Malaria prevention equipment provided is often underutilized. For example, mosquito nets distributed are used for farming or fishing.

Good communication between patients or their families and health workers is needed to create a relationship of mutual trust and can increase satisfaction and reduce tension. (Patriksson et al., 2019)

5 Conclusion

Health communication, particularly in preventing and treating malaria in Papua, remains a significant challenge. Obstacles identified include language, cultural, and educational barriers among the diverse population.

Beyond communication challenges, other challenges include the vast work area and challenging geographic conditions, such as hilly areas, forests, and near rivers. Health workers generally understand these challenges and are working with various methods, studying and utilizing local wisdom as the initial capital for approaching local communities. This effort including personal approaches through direct communication, through religious and traditional leaders, and through health cadres. This effort is part of a sustainable health campaign to prevent and control malaria in Jayapura, Papua.

References

- Aisyah, D. N., Sitompul, D., Diva, H., Tirmizi, S. N., Hakim, L., Surya, A., ... & Manikam, L. (2024). The Changing Incidence of Malaria in Indonesia: A 9-Year Analysis of Surveillance Data. *Advances in Public Health*, 2024(1), 2703477.
- Akhir Desember 2024, angka HIV-AIDS di Kabupaten Jayapura Melonjak: Dinkes Temukan 484 Kasus Baru - *Tribun-papua.com*. (n.d.).
- Betsch, C., Böhm, R., Airhihenbuwa, C. O., Butler, R., Chapman, G. B., Haase, N., ... & Uskul, A. K. (2016). Improving medical decision making and health promotion through culture-sensitive health communication: an agenda for science and practice. *Medical Decision Making*, 36(7), 811-833.
- Cross, R., Davis, S., & O'Neil, I. (2017). *Health communication: Theoretical and critical perspectives*. John Wiley & Sons.
- 28, L. updated: A., & Name. (2024, April 28). Kasus malaria 47.953 pada 2022, tertinggi di Kabupaten Jayapura Dalam lima Tahun Terakhir. *Jubi Papua*.
- Higginbottom, G. M., Safipour, J., Yohani, S., O'Brien, B., Mumtaz, Z., & Paton, P. (2015). An ethnographic study of communication challenges in maternity care for immigrant women in rural Alberta. *Midwifery*, 31(2), 297-304.
- Hutapea, K., & Hutapea, D. M. M. (2025). Implementation of Local Wisdom Values as a Managerial Approach in Strengthening Public Health Programs. *Oshada*, 2(6), 190-202.
- Malikhao, P. (2019). Health communication: Approaches, strategies, and ways to sustainability on health or health for all. In *Handbook of communication for development and social change* (pp. 1-24). Springer, Singapore.
- Murtiningsih, B. S. E., Meidiyawati, N., & Veronika, V. (2024). Participatory Communication Model Based on Local Wisdom in Ecotourism of West Detusoko Village. *Jurnal Komunikasi Ikatan Sarjana Komunikasi Indonesia*, 9(1), 22-34.
- Murtiningsih, B. S. E., & Veronika, V. (2022). The role of multicultural competence based on local wisdom in the cross-cultural adaptation Javanese Muslim minority in Pagayaman Village, Buleleng Regency, Bali Province. *Jurnal Komunikasi Ikatan Sarjana Komunikasi Indonesia*, 7(1), 221-231.
- Purba, K. Y. T., Siregar, V. O., & Indriyanti, N. (2021, December). Pola Penggunaan Antimalaria pada Pasien Malaria di Instalasi Rawat Inap RSUD Jayapura Periode Januari–Desember 2020: Pattern of Antimalarial Drug in Malaria Patients in the Jayapura Hospital Inpatient

- Installation During January–Desember 2020. In Proceeding of Mulawarman Pharmaceuticals Conferences (Vol. 14, pp. 153-159).
- Samovar, L. A., Porter, R. E., McDaniel, E. R., & Roy, C. S. (2017). *Communication between cultures* (9th ed.). Cengage Learning.
- Tukayo, B. L. A., & Samalo, R. (2023). Inventory of Medicinal Plants The Treatment and Prevention of Malaria in The East Sentani District, Jayapura Regency. *FITOFARMAKA: Jurnal Ilmiah Farmasi*, 13(1), 9-19.
- Wahyuni, T. (2015, November 29). Sulitnya memberi Pelayanan Kesehatan di papua. nasional. <https://www.cnnindonesia.com/nasional/20151129164221-20-94742/sulitnya-memberi-pelayanan-kesehatan-di-papua/>

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

